

March 23, 1964

Dr. Ben Eiseman
Professor and Chairman
Department of Surgery
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Lexington, Kentucky 40506

Dear Ben:

Thanks for your letter of March 9th on your organization of a conference to discuss "Mechanical devices to assist the failing heart". In reply to your questions as stated:

1) I should be happy to participate.

2) As I have checked on the sheet, it seems to me that I might be of assistance in discussing Frank Spencer's presentation of methods of quantitating effectiveness of cardiac assistance. (Item B on your program).

Under Item C, I am not at all clear about your discussion on physiologic problems of prolonged pumping and oxygenation. I would think that either David Hall or Augusta, Georgia, or I could discuss this very satisfactorily in view of our experiments with Ake Senning on 24-hour total left heart bypass. I would like to see him asked to present this material. Hall and I also had a dog which we ran for somewhat over three days.

Under Item E, you have the roller pump with John Kirklin discussing. I believe the most refined pump which has been published was presented by Wesolowski. While it is very similar to that which Gibbon used in his first machine, it has a rather elegant series of experimental studies backing the precise design in question. It seems to me he should probably be the one to present this material unless John Kirklin has done work which I am not familiar.

Under Item E, No. 3, I am listed under the Piston and Diaphragm-type Pump which my associates and I abandoned years ago on the basis of studies performed with high flow. These were done also in association with Dr. Wesolowski. I know some new workers are studying this type of pump, but really wonder whether my participation here is worth while unless to indicate that hemolysis is high with high flow. It is possible someone who has worked on the new Army pump might more appropriately fit in this area.

Under Item E, No. 4, the tube compression pump, insofar as I know, was the creation of Ake Senning and I think he might very reasonably be asked to present material concerning it.

Under Item E, No. 3, you have Peter Salisbury listed on veno-arterial pumping without oxygenation. Peter has worked on many aspects of all types of pumping, but I believe John Connolly was the one who first put veno-arterial pumping into the literature with emphasis. The paper of Arnold Seligman with regard to the results of veno-arterial pumping in cardiac damage in dogs, I think must be included in the program.

Under Item F, No. 4, veno-arterial pumping with oxygenation, the original publications were mine, Melvin Newman's, and Jackson Stuckey's. The group of us, headed by Dr. Stuckey, published a small series of clinical patients in 1957 in the Surgical Forum with salvage of a patient from a group in which the mortality otherwise had been 100%. I believe Stuckey should be invited to present this material rather than Galletti unless Galletti has done work with which I am not familiar.

Under Item F, No. 6, I should be very happy to present the material on left auricular cannulation and bypass, but if I am to include the development of the cannula, the technique of placing, the demonstration of reduction of oxygen utilization with such bypass, and the reduction of risk of ventricular fibrillation as well as clinical application, I believe more than 15 minutes would be necessary. I do believe 25 would cover it.

Under Item F, No. 9, you have external body compression. I would be happy to cover this, but if the material is to be covered it cannot be done in 5 minutes. I believe 12 minutes should suffice.

Under Item F, No. 11, you have left ventricular bypass by a W. Hall. Possibly you mean Dr. David Hall of Augusta, Georgia. If such is the case, I believe that Dave and I could separate this material out so that our combined presentations would be well coordinated, under which circumstances the 25 minutes which I request plus the 10 minutes which he requested might be more than is necessary. We could probably cover the whole material in 30 minutes between us.

I am perplexed that some items have been omitted in your proposed program. The first of these is a shunt developed by Dr. Adrian Kantrowitz which I believe preceded that developed in Houston and which I believe is a great deal more effective. Although I am not fully aware of all of the work which has been done in Houston on this subject, I am perplexed and I must confess annoyed at the prominence which that group has been given in the proposed program.

If you were to invite Dr. Ake Senning to participate in this program, I believe it would strengthen it immensely. The original observations with regard to left heart bypass were his, although I must confess that insofar as I know he did not publish them. They nevertheless were the background which led to our mutual work on this subject in 1960-61.

I believe you should include the work of Ramson and Harken on mechanical synchronized external cardiac massage. They were successful in salvaging a

patient with massive myocardial infarction and shock more than two years ago by utilization of this technique. I think this approach should be stressed.

I feel a conference such as you are proposing is a wholesome thing to have. I, perhaps, am being petty, but I am a little hurt that the development should have reached this stage without my being invited to participate in organization thereof. The idea of external cardiac support by equipment of any kind, I believe, was mine in the first place. It was carried out in patients by me and my associates in the first place. The first salvage was accomplished by us, I was a participant in the development of the left heart bypass technique and, finally, my associates and I were the first to propose the utilization of external counterpulsation without cannulation or heparinization. All in all, I would be very happy to be a participant in the organization of this conference as well as a participant in the presentation of material when it comes to pass.

Very sincerely yours,

Clarence Dennis, M.D.
Professor & Chairman
Department of Surgery

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